UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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January 9, 2012

Ms. Janice Osadczuk
Team Leader, Environmental Services
U.S. Department of Transportation
Federal Highway Administration
575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

SUBJECT: EPA review and comments for the
Supplemental Draft Environmental Impact Statement (SDEIS) for the
Proposed Louisville – Southern Indiana Ohio River Bridges Project
CEQ No. 20110395

Dear Ms. Osadczuk:

The U.S. Environmental Protection Agency (EPA) Regions 4 and 5 jointly reviewed the SDEIS for the Ohio River Bridges Project pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. We appreciate your continuing coordination with us. Region 4 has been designated as the EPA lead region for the project. The purpose of this letter is to provide you with the results of the EPA review.

In order to alleviate existing safety problems and traffic congestion and meet planned growth needs, the Federal Highway Administration (FHWA), the Indiana Department of Transportation (INDOT) and the Kentucky Transportation Cabinet (KYTC) proposed that new bridges be constructed in the metropolitan Louisville area, along with reconstruction of the existing Kennedy Interchange (also termed Spaghetti Junction), and implementation of non-motorized facility measures to facilitate traffic flow. The SDEIS is required in order to update environmental impact data and project plans that have changed since the earlier EISs and the 2003 Record of Decision for this project. We note that the Purpose and Need has not changed.

EPA recognizes the priority of the Louisville-Southern Indiana Ohio River Bridges Project to address long-term, cross-river transportation needs in metropolitan Louisville, Kentucky and Southern Indiana. While EPA's comments include discussion of areas where additional information is needed, the SDEIS generally makes a methodical effort to identify the many complex issues and environmental impacts associated with this project.

Based on our review of the SDEIS, EPA rated the document as "Environmental Concerns, Insufficient information" (EC-2). Concerns exist regarding the potential direct, indirect, and cumulative impacts of the project. EPA is providing comments on the project's alternatives evaluation, air quality, traffic noise impacts and mitigation, surface water and groundwater quality, wetlands avoidance and minimization, compensatory wetlands mitigation, forest impacts, endangered species, and wellhead protection areas (WHPAs). In addition, socioeconomic impacts, environmental justice (EJ) and cultural resources are areas of concern.

socioeconomic impacts, environmental justice (EJ) and cultural resources are areas of concern. We note that a revised Memorandum of Agreement (MOA) will be part of the National Historic Preservation Act Section 106 process and will be included with the SFEIS.

Thank you for the opportunity to comment on this SDEIS. We look forward to reviewing the Supplemental Final DEIS (SFEIS) and a continued good working relationship with FHWA and the state transportation agencies. We appreciate your continued coordination as this project progresses. We are also available to meet with you to discuss how these concerns can be best addressed. If you have questions, please contact Ramona McConney, EPA Region 4 at (404) 562-9615, or Virginia Laszewski, EPA Region 5 at (312) 886-7501.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures (2):
EPA Comments
Summary of Rating Definitions

Cc: Mr. Jose Sepulveda, P.E., FHWA - KY
Mr. Gary Valentine, KYTC
Mr. Paul Boone, INDOT

EPA review and comments for the
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General

We appreciate the supporting research study information in the Appendices of the SDEIS, as well as the online availability of the SDEIS and Appendices. We recognize the priority of this project, and appreciate your continued coordination with us.

Alternatives Analysis

The proposed reconstruction of the Kennedy interchange in-place and the construction of the two new bridges would implement a cost-saving approach, as compared to previous plans from earlier EISs and the Record of Decision (ROD). The SDEIS discusses the alternatives evaluated during the FEIS screening process, as well as the alternatives evaluated in the SDEIS. The FHWA/INDOT/KYTC evaluated three alternatives in the SDEIS:

1. *No-action / No build.*

EPA has no comments regarding this alternative.

2. *The Selected Alternative (as approved by the 2003 ROD).*

Comment: Page 3-8 notes that the FEIS Selected Alternative estimated cost is $4.1 billion (this alternative did not include tolling). The SDEIS states that this alternative is not financially feasible, and the estimated data regarding tolls (in Appendix G) would not sufficiently offset construction costs to make this alternative feasible in a tolling scenario.

Recommendations: At the time that the Selected Alternative was being evaluated and selected, the resource agencies and the public understood that it was a financially feasible alternative. We recognize the need for the Ohio River Bridges Project, and therefore we suggest that the project team carefully evaluate the feasibility for funding the Modified Preferred Alternative, in order to avoid future delays as the project progresses. EPA compared the impacts of the Selected Alternative with the Modified Selected Alternative, and concurs that the latter would reduce some environmental impacts.

3. *A Modified version of the Selected Alternative with tolls and the following cost-saving alternatives: rebuild the Kennedy Interchange in-place; remove the pedestrian walkway/bikeway from the Downtown Ohio River Bridge; and reduce the East End Bridge and approaches from six lanes to four lanes, with the option to widen to six lanes in the future.*

Comment: Page 3-8 notes that *"The project design modifications are projected to result in a $1.2 billion savings from the estimated $4.1 billion cost of FEIS Selected Alternative. Therefore, the estimated cost of the Modified Selected Alternative is $2.9 billion."* Appendix G.2, Part III states

that the $2.9 billion project development and construction cost estimate is based on projected year-of-expenditure dollars. Table 2 estimates that annual net revenue from tolling would range from approximately $16.92 million (in 2017) to $538.98 million (in 2062). Table 3 evaluates bond issuance/bonding structure, estimating that $0.85 billion to $1.1 billion could be available to finance construction.

The SDEIS (Page 3-35) states that the Bridge Authority plans to use the September 2011 Updated Financial Plan as a basis for completing its efforts to review and evaluate potential options, and to develop a recommended financial plan for the Project by the close of 2011. This document is to be completed in advance of the project's ROD, and will include the funding schedule for the project.

Recommendations: The transportation agencies estimated that construction of the project would begin in 2012 and be completed in 2022. We note that the project's schedule in the SDEIS spans 2004-2022 (Appendix G.3). The SFEIS should update the project schedule and include current information regarding the progress and status of the Updated Financial Plan.

EPA also recommends that the SFEIS provide a construction sequence outline and rationale based on actual available funding identified in the Bridge Authority's future recommended financial plan, in order to clarify the priority for constructing each segment of the project. We understand that there are demonstrated existing safety and traffic issues with the downtown bridge and the Kennedy Interchange, which serve the majority of existing and projected vehicle traffic, (these issues were discussed in the 2003 FEIS and in the subsequent SDEIS).

Pedestrian/Bikeway Access

The SDEIS evaluates the removal of the pedestrian/bikeway facility from the design of the Downtown I-65 Bridge (as compared to earlier plans from the previous EISs and ROD). This change in bridge design is a cost-saving measure, and elimination of the pathway was proposed because of a separate project to complete the Big Four Bridge pedestrian walkway and bike path. The plans for a 17-foot-wide pedestrian/bicycle path would be removed from the new downtown I-65 bridge because a 22-foot-wide pedestrian/bicycle access across the river will be provided on the Big Four Bridge as a separate project.

On the Kentucky side, the ramps have been completed; rehabilitation of the Big Four Bridge began in 2011 and is currently under construction. On the Indiana side, construction of ramps is expected to begin in 2012 (page 3-19). The SDEIS does not discuss whether there are currently adequate available funds to complete the pedestrian walkway and bike path on the Indiana side.

Recommendations: We recommend that the SFEIS clarify whether there are currently sufficient available funds for completion of the Big Four Bridge pedestrian pathway and bike path on the Indiana side. If funding is not available, the SFEIS should discuss how FHWA/INDOT/KYTC plan to obtain sufficient funds for the timely cross-river completion of the Big Four Bridge pedestrian and bike path, since the area would be without cross-river access for pedestrians and bikers if this project were not completed, according to the SDEIS Modified Preferred Alternative.

Socioeconomic/Tolling

The Modified Preferred Alternative includes electronic tolling for the Kennedy Bridge, the new Downtown Bridge, and the new East End Bridge (page 3-16). The SDEIS notes that there would be no toll booths nor plazas needed to implement the electronic tolling. Since there would be no toll booths, clarification is needed regarding how visiting drivers would be informed of tolling procedures, and how local and visiting drivers who do not have internet access or a toll payment device would pay the toll in order to cross the bridges. In addition, EJ communities are a particular concern, and plans to inform these drivers should be addressed.

Appendix G.5, page 3 describes a tolling scenario where tolls will be collected electronically, by transponder account or through video identification and a single toll rate by vehicle type will be collected, regardless of the collection method used. Truck tolls are 2 and 4 times the car rates, for light and heavy trucks respectively. The same toll rates will be in effect at all times throughout the day (no time-of-day variations). Tolls will be collected in both directions. Appendix G.5 also notes that toll rates are assumed to be increased annually according to the Consumer Price Index (CPI), assumed at 2.5% yearly growth for the analysis.

Recommendations: The SFEIS should clarify how visiting drivers would be informed of tolling procedures, and how drivers in the local community who do not have internet access would pay tolls in order to cross the bridges. If there are updates and changes to plans for the outlined tolling procedures, this information should also be included in the SFEIS.

Page 5-36 of the SDEIS states that there would be no disproportionate or adverse impacts to EJ communities, yet the document also states that some drivers may need to travel through EJ communities in order to access a non-tolled bridge (page 5-37). Therefore, clarification is needed regarding expected detours traffic will use in order to cross a bridge in a non-tolled area. A map showing anticipated detours would be helpful.

We have some concerns that drivers who are unwilling or unable to utilize electronic tolling (due to lack of internet access, lack of toll payment device, low income, or other reasons) could add to congestion in other areas. Page 5-30 refers to the "economic burden" of tolling, but there are also concerns regarding some drivers having burdensome issues with access to the technology used to pay the tolls.

We recommend the SFEIS provide additional discussion and information regarding potential socioeconomic impacts to EJ populations regarding the following concerns:

1. Evaluate and clarify the potential for jobs for low income and minority populations related to the implementation of the project.
2. Discuss impacts to residences and schools in EJ communities due to construction activities (e.g., air quality, noise).
3. Discuss the impacts to businesses in and serving communities with EJ concerns, during both construction and operation of the project.
4. Explain mitigation plans to address potential differential economic impacts of tolling. The SDEIS estimates that 9% of a low-income person's income will be spent on tolls,

versus 2% or less of an average wage earner's income will be spent on tolls. This is significant, and suggests a disproportionate and adverse impact to low-income drivers.

5. Provide a more detailed explanation of the cost of time and operating costs calculations that contributed to the analysis that leads to a no economic impact conclusion. It appears the analysis does not take into account that many people are going to be driving further to avoid tolls. If a driver does take a toll bridge, would they incur a larger expense than if they had spent more time traveling to avoid the toll bridge?
6. Provide a more detailed explanation of the conclusion that there will be little or no impact resulting from traffic diversion to avoid paying tolls.
7. Address the key socio-economic burdens identified in the 2003 FEIS and subsequent mitigations, per Chapter 8.

Air Quality

The Louisville Metro Area of Louisville, Kentucky and Southern Indiana has been designated as nonattainment of the National Ambient Air Quality Standards (NAAQS) for fine particulate matter ($PM_{2.5}$). Therefore, the Ohio River Bridges Project is required to address project level "hot-spot" considerations for $PM_{2.5}$. The DSEIS, Appendix B.1.1, contains $PM_{2.5}$ Analysis information.

The SDEIS correctly states that the tolling option was included in the regional conformity analyses for the Kentuckiana Regional Planning & Development Agency long-range transportation plan. Both Region 4 and 5 reviewed the conformity analyses and commented that the documentation met the requirements of the conformity regulations. The $PM_{2.5}$ qualitative hot spot analysis has also been completed and reviewed by USEPA Regions 4 and 5. The tolling option does not increase the total traffic volumes and lower traffic volume is predicted with the tolls, so the qualitative hot spot analysis can still be considered valid.

We note that the surrogate site 1, Barret Avenue Monitor, has been shut down since 2008, and three years of monitoring data has not been obtained. (This monitor is discussed in Appendix B.1.1, Final $PM_{2.5}$ Project-Level Conformity Analysis document, pages 16-26.) Using a surrogate monitor with three full years of data is more appropriate to demonstrate that the area has attaining data for the annual standard.

Appendix B.1.1 concludes that the 2020 build scenario will result in improved speeds, less delay, and reduced idling in the downtown area, leading to reduced mobile source emissions compared to the no-action alternative.

Recommendations: This area is nonattainment for the $PM_{2.5}$ annual standard and not the $PM_{2.5}$ 24-hr standard. Therefore, we recommend that more discussion should be included in the SFEIS regarding complying with the annual standard.

In Appendix B.1.1, the Downtown truck percentage varies from 11.1 (page 26) to 11.4 (pages 10, 25, and 29). Please clarify this data in the SFEIS for consistency.

Greenhouse Gas (GHG) Emissions

The SDEIS states, *"FHWA does not believe it is informative at this point to consider greenhouse gas emissions in an Environmental Impact Statement (EIS). The climate impacts of GHG emissions are global in nature,"* (page 5-114). FHWA concludes that they cannot usefully evaluate GHG emissions in this EIS in the same manner that other vehicle emissions are addressed.

As correctly noted in the SEIS, CEQ has proposed four steps to modernize and reinvigorate NEPA. In particular, CEQ issued draft guidance for public comment on, among other issues, when and how Federal agencies must consider greenhouse gas emissions and climate change in their proposed actions (http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf).

The draft guidance explains how Federal agencies should analyze the environmental impacts of greenhouse gas emissions and climate change when they describe the environmental impacts of a proposed action under NEPA. It provides practical tools for agency reporting, including a presumptive threshold of 25,000 metric tons of carbon dioxide equivalent ($C0_2e$) emissions from the proposed action to trigger a quantitative analysis, and instructs Federal agencies regarding how to assess the effects of climate change on the proposed action and their design. The draft guidance does not apply to land and resource management actions, and does not propose to regulate greenhouse gases.

Recommendations: While this guidance is not yet final (and thus, not required), we recommend that the assessment explicitly reference the draft guidance, describe the elements of the draft guidance, and to the relevant extent, provide the assessments suggested by the guidance. For example, EPA recommends that the project sponsors thoroughly consider the need for measures to manage potential climate-related impacts due to expected increases in storm frequency and intensity, such as increased floodwater flows and needed drainage capacity in the design of this project. EPA also notes that as of January 2011, certain greenhouse gases are now regulated under the Clean Air Act, further emphasizing the need to perform an appropriate level of analysis for this suite of compounds. The CEQ document noted above provides such guidance.

Mobile Source Air Toxics (MSATs)

The SDEIS includes the analysis of mobile source air toxics (MSATs), which were not addressed in the 2003 FEIS because at that time there were not policies requiring it (Section 5.4.4). Page 5-111 concludes that the project would have minimal MSAT effects. Appendix B.1.2 states, *"on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today."*

Section 4.4.4, Page 4-128 states, *"This SDEIS includes a basic analysis of the likely MSAT emission impacts of the construction of the project. However, available technical tools do not enable predictions to be made of the project-specific health impacts of the emission changes associated with the alternatives currently being considered,"* and *"Technical shortcomings of*

emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project." Current modeling tools are available to do a quantitative MSAT analysis that can inform the comparison of the potential impacts of the different alternatives in transportation projects. For the MSAT modeling we recommend the use of AERMOD or CAL3QHCR for refined analyses. Techniques described in the December 2010 PM Hot-spot Guidance are generally appropriate for modeling the ambient concentrations of MSATs (http://www.epa.gov/otaq/stateresources/transconf/policy.htm#project, refer to Section 1.5, "...certain sections of this technical guidance may also be applicable... for other purposes."). The December 2010 PM Hot-spot Guidance refers to refined analyses using representative meteorology, but for MSAT modeling it may also be appropriate to conduct a screening analysis of MSAT concentrations using a simple model such as CAL3QHC or CALINE3. (For additional information on modeling ambient concentrations of MSATs, please refer to http://www.epa.gov/oms, or contact Chad Bailey (734-214-4954) of the Office of Transportation and Air Quality (OTAQ).)

The statement that project level estimates of MSAT emissions and potential effects would not be meaningful or reliable is inconsistent with current practice and published literature by emissions, air quality, and environmental health professionals.

Section 5.4.4, page 5-111, states that the project will have minimal MSAT effects partly because the project, *"...will reduce the concentration of vehicles in the Downtown area which aids region wide MSAT emissions."* While the project may reduce MSAT emissions, no quantitative evaluation of MSAT emissions is included in the SDEIS. Therefore, an anticipated regional reduction in emissions is uncertain, particularly as it relates to specific project areas.

Section 5.4.4, page 5-112, states, *"Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of USEPA's national control programs..."* It is important to note that the projected reduction in emissions resulting from EPA regulations does not waive the need for evaluation of the potential impacts of each alternative and the need to protect public health from emissions associated with the project by using appropriate mitigation measures.

Section 5.4.4, page 5-112, states, "*The construction of either of the Build Alternatives will have the effect of moving some crossriver traffic closer to nearby communities including Prospect, Kentucky, and Sellersburg and Utica, Indiana; therefore, there may be localized areas where ambient concentrations of MSATs could be higher under the Build Alternatives than with the No-Action Alternative. The localized increases in MSAT concentrations would likely be most pronounced at locations near the areas that will be constructed on new alignment. However, as discussed above, the magnitude and the duration of these potential increases compared to the No-Action Alternative cannot be accurately quantified due to the inherent deficiencies of current models."*

Appendix B.1.2, Section 1.3 lists a number of MSAT impact mitigation strategies, but commits to none. The SFEIS and ROD should include mitigation commitments for MSAT impacts.

Recommendations: The SFEIS should include an analysis for each alternative that includes an emissions inventory by location in order to identify areas of greater MSAT emissions, including those emissions associated with construction. The ambient concentrations near these sources of greater MSAT emissions should be estimated, and the potential effect on nearby areas, especially those with sensitive populations, should be estimated with a screening level risk assessment of each alternative.

In addition, the SFEIS should provide additional information and discussion regarding the potential for any localized MSATs air quality impacts due to the proposed venting of the east end tunnel. MSAT mitigation commitments should be included.

Clean Diesel Measures

We appreciate your consideration of the EPA's list of approved diesel retrofit technologies (referenced in the DSEIS, Appendix B.1.2), noting that many of these can be deployed as emissions mitigation measures for equipment used in construction as referenced at www.epa.gov/otaq/retrofit/retroverifiedlist.htm.

Recommendations: EPA recommends that the project implement overall diesel emission reduction activities through various measures such as: switching to cleaner fuels, retrofitting current equipment with emission reduction technologies, repowering older engines with newer cleaner engines, replacing older vehicles, and reducing idling through operator training and/or contracting policies. EPA can assist in the future development or implementation of these options.

Water Quality

Chapter 5 discusses the use of Best Management Practices (BMPs) to prevent non-source point pollution to control storm water runoff and to minimize sediment damage to water quality and aquatic habitats (page 5-170). Minimization of erosion and water quality impacts are of particular concern during the construction period. The SDEIS identifies that the INDOT *Standard Specifications and Special Provisions* will govern construction activities in Indiana to control erosion and minimize water pollution. The KYTC *Standard Specifications for Road and Bridge Construction* will guide construction activities in Kentucky (pages 5-170, 8-3).

However, the SDEIS does not identify the specific measures that INDOT and KYTC will use to ensure that the standard specifications and special provisions will be successfully implemented by the construction contractors in a timely fashion. Such measures might include, but need not be limited to, requiring an independent environmental monitor with authority to stop construction if adequate sediment and erosion control measures are not being implemented and properly maintained. INDOT and KYTC construction contracts could include a provision to levy substantial monetary fines when a contractor fails to properly implement appropriate construction BMPs to protect surface and ground water quality.

Recommendations: We recommend the SFEIS identify the specific measures INDOT and KYTC will take to help ensure that their construction contractors follow their construction

standard specification and special provisions. The SFEIS should clarify the effects of the project on stormwater volumes related to the amount of impervious surfaces to be constructed. Alternative minimization strategies such as pervious concrete or porous pavement should be considered to help offset impacts, in areas where those approaches are feasible and can meet safety requirements. Alternative paving materials have additional environmental benefits besides groundwater recharge, including reduced stormwater runoff and reduced pollution.

Streams

Streams in the project area include Harrods Creek, Goose Creek, Little Goose Creek, Muddy Fork, Beargrass Creek, and Wolf Pen Branch in Kentucky, and Lentzier and Lancassange Creeks in Indiana. The SDEIS (Waterways and Riparian Vegetation) states: *"the project includes two crossings of the Ohio River and crossings of Harrods Creek, Lentzier Creek, two major tributaries of Lentzier Creek, and Beargrass Creek which will require design and construction of bridge structures."* Table 5.10.1 Water Body Modifications (page 5-197) indicates that nine culverts and seven bridges will be constructed for twenty stream channels crossed with the Modified Selected Alternative, but the streams that will be bridged are not identified.

Recommendations: We recommend that the seven stream/creek names and associated unique identification numbers be specifically identified in Table 5.10.1 as the waterbodies that must be bridged along with their associated 100-year floodplains. In addition, the commitment to bridge these specific seven waterways and their associated 100-year floodplains should be made a firm commitment in SFEIS Chapter 8 – Commitments and Mitigation and in the ROD. We note that the Modified Preferred Alternative calls for crossing five floodplains, and would result in 80.03 acres of encroachment (page 3-32), a reduction in impacts from the FEIS Alternative.

BMPs to be utilized to prevent non-point source pollution, to control storm water runoff, and to minimize sediment damage to water quality and aquatic habitats are discussed on page 8-8. The SDEIS (page 4-145) states that Harrods Creek is no longer impaired based on Draft 2010 listings.

Further updates, if available, should be given regarding the quality and condition of the Ohio River and the various streams in the project area, including identification of any total maximum daily loads (TMDLs) for a particular stream.

Wellhead Protection Areas (WHPAs)

The SDEIS states that in Indiana, neither the FEIS Selected Alternative nor the Modified Selected Alternative would impact WHPAs (page 5-182). We note that a wellhead protection area (WHPA) occurs in the project area in Kentucky, and that groundwater protection measures are defined in the SDEIS (Section 5.8.5).

Page 5-186 states that a drainage system has been designed to contain all roadway runoff into vaults prior to releasing the runoff into Harrods Creek, in order to prevent roadway pollutants from entering the WHPA. The SDEIS lists BMPs to be used to prevent non-source point

pollution, to control stormwater runoff, and to minimize sediment damage to water quality and aquatic habitats (page 5-170).

Recommendations: We recommend that the project team continue to coordinate with the Louisville Water Company and the Kentucky Division of Water regarding issues that could potentially impact the wellhead protection area and ground water quality.

Wetlands

A total of 4.95 acres of jurisdictional wetlands, excluding stream channels, within the proposed right-of-way of the FEIS and the Modified Selected Alternative would potentially be impacted (page 5-196). The SDEIS states that wetland and stream mitigation for the East End Alternative in Indiana is being developed for use in the Clean Water Act (CWA) Section 401 and 404 permit applications (page 5-198). The SDEIS (page 5-198) also identifies that coordination with the U.S. Army Corps of Engineers (USACE), Louisville District, resulted in preparation of a wetland mitigation plan during the development of detailed plans. We appreciate the maps and tables in Appendix B regarding streams and wetlands.

FHWA, INDOT, KYTC, and project managers met with USACE on April 26, 2011, regarding coordination of the permit approval process. In consideration of the accelerated schedule, USACE agreed to review a draft permit application in advance of the publication of the SDEIS. The draft permit application was expected to be sent to USACE in the fourth quarter of 2011 for advance review purposes. An official permit will be submitted for approval following the ROD on the SEIS (page 7-19). EPA reserves its right to provide further review comments during the USACE's CWA Section 404 permitting process for this project.

Table 5.10-2 discusses the Direct Impacts to Terrestrial and Aquatic Resources (pages 5-198 and 5-199), and provides the following wetlands impact acreage information:

- FEIS Selected Alternative: 13.18 acres total (4.95 acres palustrine, and 8.23 acres riverine and lacustrine).
- Modified Selected Alternative: 9.58 acres total (4.95 palustrine, and 4.63 riverine and lacustrine).
- Both build alternatives have 1.54 acres of forested wetland impacts.

Recommendations: Please be aware that since EPA Region 4 includes Kentucky and EPA Region 5 includes Indiana, the wetlands impacts/permitting data in Kentucky and Indiana will be reviewed separately by the EPA Regions, therefore, separate maps/tables for wetlands in each state would be appreciated.

EPA recommends that the SFEIS contain updated information regarding the status of the permitting process, the acreage of wetlands listed by state, and the wetland mitigation plan that was developed during the development of detailed plans that resulted from coordination with USACE (page 5-198).

The SFEIS should clarify why both build alternatives have the same amount of direct palustrine wetland impacts (4.95 acres), since the Modified Selected Alternative has a reduction in width of the proposed East End Bridge, tunnel and roadway.

Noise

The SDEIS evaluates noise impacts to receptors, noise sensitive areas, and historic properties. We appreciate the level of data in the noise evaluation, and the noise analysis data in Appendix B. We note that the noise impacts and mitigation described for the preferred alternative in the FEIS are the same as for the SDEIS Selected Alternative (page 5-114). Based on the assessment in the SDEIS, the levels of noise will not meet the reasonableness criterion (cost effectiveness) for noise barrier construction, based on INDOT and KYTC criteria. Therefore, barrier abatement is not planned.

Recommendations: Environmental stewardship should include measures to avoid and minimize noise impacts. If noise walls are not feasible, then we recommend that other measures such as vegetative barriers and earthen berms should be considered to reduce noise to impacted receptors.

Environmental Justice (EJ)

Communities may experience both benefits and burdens associated with this project, and should be involved in meaningful discussion with the project team during project planning. According to the SDEIS, communities with EJ concerns are located in the project area. EPA understands that the EJ assessment included the use of 2000 U.S. census data because 2010 census data is not currently available at the block group level for all of the relevant parameters. While the use of 2000 data may be appropriate for consistency, it can be supplemented by more recent available data or surveys that have been conducted in the region.

EPA understands that the total number of proposed relocations will be reduced from the FEIS Selected Alternative levels due to the decision to reconstruct the Kennedy interchange in its current location. The Downtown Corridor portion of the Modified Selected Alternative includes both residential and commercial relocations. However, the number of residential, commercial and not-for-profit relocations will be reduced from the FEIS Selected Alternative levels of 107 (80 business/non-for-profit and 27 residential) to 41 with the Modified Selected Alternative. These relocations include the displacement of the Wayside Mission, a men's homeless shelter. In addition, the proposed project will result in fewer impacts to two Kentucky neighborhoods, Butchertown and Phoenix Hill, but direct impacts to Indiana neighborhoods will not change. Along the East End Corridor, the number of residential relocations will remain the same. The Modified Selected Alternative will include 53 relocations. The SDEIS anticipates that disruptive impacts to existing local transportation routes would be minimal. However, quality of life impacts are anticipated due to increased noise and development pressures associated with new access.

Recommendations: EPA appreciates the updated EJ assessment data in the SDEIS, and encourages the project team to continue coordinating with the communities that will be impacted

by the project's construction and operation. A construction project of this magnitude and scope has the potential for disproportionate impacts to area residents, businesses and cultural resources, and project planning should take into consideration community concerns and appropriate mitigation measures. Meaningful involvement and discussion of project issues should take place throughout project planning.

The SFEIS should indicate whether supplemental demographic data or survey information was available for the region, such as the 2007 American Community Survey (ACS), etc. In addition, when the necessary parameters for the 2010 census data becomes available at the block group level, EPA recommends that it should be incorporated into the SFEIS.

As part of EJ assessment process, the SFEIS should indicate what proportion of these relocation impacts are anticipated to occur in communities with EJ concerns. The SFEIS should also provide information regarding the availability of alternative placement for the Wayside Mission that will be relocated.

In addition, please see our comments under the Socioeconomic/Tolling heading regarding traffic diversion concerns, economic burdens of tolling, and concerns about access to the technology used to pay the tolls.

Threatened and Endangered Species

The SDEIS includes a description of the original Biological Assessment (BA), recent and on-going correspondence with U.S. Fish and Wildlife Service (USFWS), and the process for developing an amended BA (Section 5.7.3). Of the 17 species listed by the USFWS for the project area, only the Indiana bat (*Myotis sodalis)* and gray bat (*Myotis grisescens)* are known or assumed to be present in the project area.

Section 5.7.3 provides information on determinations of effect and mitigation for the federally listed species, and we note that The BA will be revised to modify the effect determination to "May Affect – Is Likely to Adversely Affect," and that the KYTC will pursue entering into a Conservation Memorandum of Agreement (MOA) with USFWS for the incidental take of Indiana bat summer habitat.

Recommendations: EPA defers to USFWS and the State wildlife agencies on these issues and recommends that the SFEIS should provide updated information regarding the consultation process with USFWS.

Indirect and Cumulative Impacts

We agree that in a project of this magnitude, there is a potential for significant indirect and cumulative impacts to important resources. The SDEIS notes that air quality, water resources, habitat, farmland, historic and archaeological resources are particular areas of concern that may be subject to indirect and cumulative impacts. In addition, EPA recommends further consideration of the project's indirect and cumulative impacts related to socioeconomic resources and EJ communities.

The SDEIS states that for the build alternatives, *"there would be no indirect or cumulative effects within the Downtown Corridor. However, within the East End Corridor, both alternatives would potentially cause indirect effects and contribute to cumulative effects to farmland. Residential and commercial development pressure is expected to continue in Clark County and Jefferson County. The project would provide new cross-river mobility with connectivity to I-64, I-65, I-71, and I-265 and provide additional access to the [Louisville Metropolitan Area] LMA in Clark and Jefferson counties, thereby increasing the pressure for continued development,"* (page 5-40). We concur that development pressure may result from additional access. In addition, there may also be indirect and cumulative effects within the downtown corridor related to socioeconomics and effects on EJ communities related to tolling and avoidance of tolling by traffic traveling through EJ areas.

Recommendations: We appreciate the information in the SDEIS regarding your coordination with resource agencies regarding mitigation planning for ecological, cultural and historical resource impacts, and we recommend that continuing coordination take place as the project proceeds in order to minimize direct, indirect and cumulative impacts.

Historic Preservation

The National Historic Preservation Act, Section 106 Process was reinitiated in accordance with the existing Memorandum of Agreement (MOA). The SDEIS states that the Section 106 process is ongoing, and that the proposed effect determinations will be completed prior to the submission of the SFEIS, and that the effect findings will be included with the SFEIS. A revised MOA will be part of the process and will be included with the SFEIS.

Recommendations: The EPA defers to the State Historic Preservation Officers for Indiana and Kentucky on these issues and recommends that the SFEIS should provide updated information regarding the consultation process.

Commitments and Mitigation

The SDEIS, Chapter 8 – Commitments and Mitigation, identifies numerous 2003 FEIS and new proposed mitigation commitments. However, Chapter 8 does not include all the 2003 FEIS identified Mitigation Commitment Categories, nor does it list all the 2003 FEIS mitigation commitments. Chapter 8 does not explain why certain 2003 FEIS Mitigation Commitment categories (e.g., Context Sensitive Solutions, Air Pollution, Right-of-Way, Noise, Construction Blasting, Water Pollution, Park Resources, Traffic Control and Tunnel Design, Construction and Operation) are no longer identified, or whether their corresponding mitigation commitments are currently proposed for implementation. In addition, Chapter 8 does not identify an EJ Mitigation Commitment category with specific mitigation commitments, (see our earlier Socioeconomic and EJ comments).

Recommendations: We recommend that the SFEIS, Chapter 8 - Commitments and Mitigation, identify all 2003 FEIS Mitigation Commitment Categories and the corresponding specific mitigation commitments, and the new additional SDEIS mitigation commitments. If either a

2003 FEIS Mitigation Commitment Category or a category commitment is no longer relevant, then it should be uniquely identified as such in Chapter 8 and a brief explanation provided.

EPA also recommends that an EJ Mitigation Commitment category with specific mitigation commitments, (e.g., percentage of low-income and/or minority populations that will be hired for project construction) be identified in the SFEIS. For easier reference, we recommend that the SFEIS and ROD include a Mitigation Commitments Table that lists all specific committed mitigation measures.

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION*

Environmental Impact of the Action

LO-Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS sate, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information
The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment